

WHAT IS CLAIMED IS:

1. A dielectric ceramic comprising
 $(Ba_{1-x}Ca_xO)_mTiO_2 + \alpha Re_2O_3 + \beta MgO + \gamma MnO$

in which Re is at least one member selected from the
group consisting of Y, Gd, Tb, Dy, Ho, Er and Yb; α , β , γ ,
5 m and x are molar ratios; $0.001 \leq \alpha \leq 0.10$; $0.001 \leq \beta \leq$
 0.12 ; $0.001 < \gamma \leq 0.12$; $1.000 < m \leq 1.035$; and $0.005 < x \leq 0.22$, and

10 about 0.2 to 5.0 parts by weight of either
a first sub-component or a second sub-component or a
third sub-component relative to 100 parts by weight of
 $(Ba_{1-x}Ca_xO)_mTiO_2$, wherein

the $(Ba_{1-x}Ca_xO)_mTiO_2$ contains about 0.02% by
weight or less of alkali metal oxides,

15 the first sub-component is a $Li_2O-(Si,Ti)O_2-MO$
oxide in which M is at least one of Al and Zr,

the second sub-component is a SiO_2-TiO_2-XO oxide
in which X is at least one selected from the group
consisting of Ba, Ca, Sr, Mg, Zn and Mn, and

the third sub-component is SiO_2 .

2. A dielectric ceramic according to Claim 1,
wherein the $(Ba_{1-x}Ca_xO)_mTiO_2$ has a mean particle size of
about 0.1 to 0.7 μm .

3. A dielectric ceramic according to Claim 1,
wherein the first sub-component is present and comprises
 $xLiO_2-y(Si_wTi_{1-w})O_2-zMO$, x, y and z are molar percentages
and $30 \leq w \leq 1.0$, and is within the area surrounded by
5 the straight lines connecting between the succeeding two
points represented by A ($x = 20$, $y = 80$, $z = 0$), B ($x =$

10, y = 80, z = 10), C (x = 10, y = 70, z = 20), D (x = 35, y = 45, z = 20), E (x = 45, y = 45, z = 10) and F (x = 45, y = 55, z = 0) or on said lines in a ternary
10 composition diagram having apexes represented by the components LiO_2 , $(\text{Si}_w\text{Ti}_{1-w})\text{O}_2$ and MO, provided that when
First Sub.
the component is on the line A-F, $0.3 \leq w < 1.0$.

5 4. A dielectric ceramic according to Claim 3,
wherein comprising at least one of Al_2O_3 and ZrO_2 in a
combined amount of about 20 parts by weight or less and
in which the ZrO_2 is 10 parts by weight or less relative
5 to 100 parts by weight of the $\text{Li}_2\text{O}-(\text{Si},\text{Ti})\text{O}_2-\text{MO}$ oxide.

5 5. A dielectric ceramic according to Claim 3,
wherein said points are A (x = 0, y = 20, z = 80), B (x = 19, y = 1, z = 80), C (x = 49, y = 1, z = 50), D (x = 45, y = 50, z = 5), E (x = 20, y = 75, z = 5) and F (x = 0, y = 80, z = 20) and wherein the $(\text{Ba}_{1-x}\text{Ca}_x\text{O})_m\text{TiO}_2$ has a mean
particle size of about 0.1 to 0.7 μm .

5 6. A dielectric ceramic according to Claim 1,
wherein the second sub-component is present and comprises
 $x\text{SiO}_2-y\text{TiO}_2-z\text{XO}$, x, y and z are molar percentages, and is
within the area surrounded by ~~the~~ straight lines
connecting between ~~the~~ succeeding two points represented
by A (x = 85, y = 1, z = 14), B (x = 35, y = 51, z = 14),
C (x = 30, y = 20, z = 50) and D (x = 39, y = 1, z = 60)
or on said lines in a ternary composition diagram having
apexes represented by the components SiO_2 , TiO_2 and XO .

7. A dielectric ceramic according to Claim 6,
comprising at least one of Al_2O_3 and ZrO_2 in a combined

amount of about 15 parts by weight or less and the ZrO_2 is 5 parts by weight or less relative to 100 parts by weight of the SiO_2-TiO_2-XO oxide.

8. A dielectric ceramic according to Claim 6, wherein said points are A ($x = 1, y = 14, z = 85$), B ($x = 20, y = 10, z = 70$), C ($x = 30, y = 20, z = 50$), D ($x = 40, y = 50, z = 10$), E ($x = 20, y = 70, z = 10$) and F ($x = 1, y = 39, z = 60$) and wherein the $(Ba_{1-x}Ca_xO)_mTiO_2$ has a mean particle size of about 0.1 to 0.7 μm .

9. A dielectric ceramic according to Claim 1 in which the third sub-component is present.

10. A dielectric ceramic according to Claim 2, wherein the molar ratio of $(Ba + Ca)/Ti$ is about 0.99 to 1.035.

11. A laminated ceramic capacitor having:
a plurality of dielectric layers containing the dielectric ceramic according to Claim 1;
a plurality of inner dielectric layers comprising Ni or a Ni alloy and existing among a plurality of said dielectric layers; and
external electrodes in electrical continuity to a plurality of said inner dielectric layers and being on the surface of said ceramic capacitor.

12. A laminated ceramic capacitor according to Claim 11, wherein said external electrodes comprise a sintered layer of conductive metal powder or conductive metal powder and glass frit.

13. A laminated ceramic capacitor having:
a plurality of dielectric layers containing the
dielectric ceramic according to Claim 2;
a plurality of inner dielectric layers
comprising Ni or a Ni alloy and existing among a
plurality of said dielectric layers; and
external electrodes in electrical
continuity to a plurality of said inner dielectric layers
and being on the surface of said ceramic capacitor.

14. A laminated ceramic capacitor according to
Claim 13, wherein said external electrodes comprise a
sintered layer of conductive metal powder or conductive
metal powder and glass frit.

15. A laminated ceramic capacitor having:
a plurality of dielectric layers containing the
dielectric ceramic according to Claim 3;
a plurality of inner dielectric layers
comprising Ni or a Ni alloy and existing among a
plurality of said dielectric layers; and
external electrodes in electrical
continuity to a plurality of said inner dielectric layers
and being on the surface of said ceramic capacitor.

16. A laminated ceramic capacitor according to
Claim 15, wherein said external electrodes comprise a
sintered layer of conductive metal powder or conductive
metal powder and glass frit.

17. A laminated ceramic capacitor having:
a plurality of dielectric layers
containing the dielectric ceramic according to Claim 6;

5 a plurality of inner dielectric layers comprising Ni or a Ni alloy and existing among a plurality of said dielectric layers; and
 external electrodes in electrical continuity to a plurality of said inner dielectric layers and being on the surface of said ceramic capacitor.

18. A laminated ceramic capacitor according to Claim 17, wherein said external electrodes comprise a sintered layer of conductive metal powder or conductive metal powder and glass frit.

19. A laminated ceramic capacitor having:
 a plurality of dielectric layers containing the dielectric ceramic according to Claim 9;
 a plurality of inner dielectric layers comprising Ni or a Ni alloy and existing among a plurality of said dielectric layers; and
 external electrodes in electrical continuity to a plurality of said inner dielectric layers and being on the surface of said ceramic capacitor.

20. A laminated ceramic capacitor according to Claim 19, wherein said external electrodes comprise a sintered layer of conductive metal powder or conductive metal powder and glass frit.